REQUEST FOR PROPOSAL

Design/Build Services for a Pilot Enhanced Evaporation Systems Project

Salton Sea Test Base
Imperial County, California

Salton Sea Authority
78-401 Highway 111, Suite T
La Quinta, CA 92253-2930

U.S. Department of Interior
Bureau of Reclamation
PO Box 61470
Boulder City, NV 89006-1470

July 17, 2000

1.0 OVERVIEW

The Salton Sea Authority (Authority) and the Bureau of Reclamation (Reclamation) are undertaking efforts to improve conditions at the Salton Sea (Sea), California. Our restoration objectives are:

- Maintaining the Sea as a repository of agricultural drainage from the Imperial and Coachella Valleys
- Providing a safe, productive environment for resident and migratory birds and threatened and endangered species
- Restoring recreational uses
- Maintaining a viable sport fishery
- Providing opportunities for economic development along the shoreline

The Sea is located in the southeastern desert of California and spans Riverside and Imperial Counties. (*Figure 1, page B-1).* The Enhanced Evaporation Systems (EES) project will be constructed at the Salton Sea Test Base on land owned by the U.S. Department of Interior. The closest communities to the project area are Salton City and Westmorland. The Sea, having a surface elevation of approximately 227 feet below sea level, is situated in a closed basin. It is sustained by inflow of drainage from irrigated agriculture in both the Coachella Valley to the north and the Imperial Valley to the south and by flows from Mexico, which consist mostly of agricultural drainage and some municipal and industrial wastewater.

The Salton Sea Authority is a regional agency. It was formed as a Joint Powers Agency by the Coachella Valley Water District, the Imperial Irrigation District, the County of Riverside and the County of Imperial. Additional information about the Sea and restoration efforts is provided at *www.lc.usbr.gov.*

2.0 PROJECT DESCRIPTION

The Authority and Reclamation will conduct the EES study in support of the Salton Sea Restoration Project. Enhanced evaporation systems consist of mechanical equipment to create and disperse a fine mist of water (70 - 1000 microns in diameter) into the atmosphere. The droplets are created by forcing water through small diameter nozzles under pressure. Once airborne, the droplets are subject to evaporation by contact with dry air. Transformation of the Salton Sea water into microscopic droplets greatly increases the surface area of the water exposed to the air, thus enhancing the rate of evaporation as compared to natural evaporation from the Sea's surface.

The EES study will be conducted in two distinct phases: the pilot phase and the demonstration phase. The objectives of the pilot phase are to optimize and compare three competing EES technologies in order to select one for more detailed testing in the subsequent demonstration phase. Environmental effects of each system will be

obtained and compared as well. The smallest integral unit of each EES technology will be tested in the pilot phase. The feedwater flow rate for these units ranges from 100 to 325 gallons per minute (gpm). Each technology will be tested during the 6-month pilot phase. The systems could run 24-hours a day, 7 days a week. Each will be equipped with a shut-down mechanism should drift from the system negatively affect the surrounding area during high winds situations (≥ 15 mph). The three technology vendors for the pilot phase of the EES study are:

I. Agam Energy Systems, Ltd., Hod-Hasharon, Israel; Moshe Maroko, president.

2. Slimline Manufacturing, Ltd., British Columbia, Canada; Kim Blagborne, president.

3. SMI Water Treatment, Midland, Michigan; Joseph VanderKelen, president.

An EES will be selected for the demonstration phase on the basis of system performance and cost. Additional units will be added to the selected EES in the demonstration phase in order to increase the scale of operation (by a factor of 3 to 5 times) to a level that is more representative of a full-scale system. Testing of the other two EES technologies will be discontinued. The objectives of the demonstration phase are to further optimize the EES performance, determine the appropriate configuration for multiple units (based on interactions between units), and collect data to design a full-scale system. The demonstration EES will be tested for 12 months.

A preliminary site layout is shown in *Figures 2a* and *2b* on pages B-2 and B-3. The size and location of the test area may be modified slightly pending submittal of final test plans from each technology vendor. With the exception of the holding pond, all of the ponds will be lined with a geomembrane liner. The holding pond will not be lined because it will contain water that is the same quality and composition as the Salton Sea. The holding pond will be filled using two 1000-gpm pumps that will draw water from the Sea through an intake structure positioned approximately 700 feet from shore near the end of the old marina. The holding pond will provide feedwater for all three evaporation systems. Detail specifications for the three EES technologies are provided in Appendix A.

There are sensitive areas for cultural resources as well as threatened and endangered species within or near the project area that may make it necessary for biological, archeological, and Native American monitors to be on site during ground disturbing/construction activities. The potential for unexploded ordnance also exists within the project area and surrounding Test Base, requiring explosive ordnance disposal specialists to be present as well during ground disturbing/construction activities.

3.0 SERVICES REQUESTED

The Authority and Reclamation are seeking a design/build Contractor. The Contractor will be required to prepare designs, plans, specifications and reviews per the specifications found in Appendix A and will be responsible for building the project. The Contractor will also be responsible for working with on-site biological and cultural resource monitors, archaeologists, and explosive ordnance disposal experts during ground disturbing/construction activities. The Contractor will be responsible for maintaining security during construction, but not during the remainder of the project. Site demolition and post-project restoration will not be the Contractor's responsibility.

The services requested are for the pilot project only. The demonstration project, if constructed, may be subject to a separate bid or task order.

The Authority and Reclamation are preparing air quality and waste discharge related permits with the Imperial Air Pollution Control District and the California Regional Water Quality Control Board, respectively. Those permits may require modifications to the site layout. The lead agencies will work with the Contractor to determine if change orders are necessary.

The Contractor will be responsible for design and installation of the pumping and on-site electrical systems for the entire pilot project. The Contractor will also be responsible for coordinating the design and installation of the tower foundations for the Agam aerial EES. All other work associated with the design and placement of the three enhanced evaporation systems will be the responsibility of the EES vendors.

The Contractor will design and construct groundwater monitoring wells. Their unit cost shall be included in the proposal.

Design of all support systems will be closely coordinated with staff from Reclamation's Technical Services Center and the three EES vendors.

All design work shall occur under the direct technical supervision of a registered professional engineer licensed in the State of California. To ensure that the designs and specifications meet the project requirements, all design work will be reviewed by Reclamation and the submitted to the Authority/Reclamation for approval prior to construction. See the following General Responsibility Chart for an overview of roles and responsibilities.

General Responsibility Chart			
	Design/ Build Contractor(s)	Authority/ Reclamation	EES Vendors
Ponds, Pumps, Pipes, On-Site Electrical, & Tower Foundation Design	■		
Ponds, Pumps, Pipes, On-Site Electrical & Tower Foundation Construction	■		
Evaporation Systems Design, Installation & Operation			■
Tower Design & Construction			■
Operations		■	■
EES Performance Testing and Monitoring		■	■
Environmental Monitoring		■	

4.0 PROPOSAL REQUIREMENTS

The proposal shall include the following:

1. **Introduction/Overview**
   Introducing the team, its qualifications and approach.
2. **Schedule**
   Provide a GANTT Chart or equivalent to describe the estimated elapsed time to design the project and to complete construction.
3. **Budget**
   Provide a lump-sum budget as well as a cost breakdown in accordance with the following table, including a per unit cost for individual items such as the groundwater monitoring wells. You may include other items in your cost breakdown, such as administrative, insurance or other costs, as necessary.

Budget Breakdown		
Item	Description	Amount
1	Design Ponds and Geomembrane Liners, Feedwater Intake & Pumping Systems, On-Site Electrical and Tower Foundation	
2	Coordinate the Installation of the Tower Foundations (2) for	

	the Agam Aerial EES	
3	Construct Ponds with Liners	
4	Construct Feedwater Intake & Pumping Systems	
5	Construct/Install On-Site Electrical System	
6	Construct Tower Foundation	
7	Design and Install Groundwater Monitoring Wells (per unit	
8	Install Meteorological Tower & Data Collection System	
9	Furnish & Install Office Trailer, Bottled Water & Latrines, as necessary	

4. **Non-Collusion Affidavit**

Provide a non-collusion affidavit in a form provided by the Authority (See Appendix C)

The proposal should not include extraneous promotional materials. Such materials can be included as an Appendix.

5.0 SELECTION PROCESS & TERMS

Proposals will be accepted no later than 5:00 p.m. on August 15. They should be addressed to:

Tom Kirk
Executive Director
Salton Sea Authority
78-401 Highway 111, Suite T
La Quinta, CA 92253

Submit seven, unbound, proposals. Proposals will be evaluated by the Authority and Reclamation with respect to: cost/value, elapsed time to design/construct, team experience and quality of the proposal. The Authority reserves the right to reject any or all proposals, to waive any informality or irregularity in any proposal received, and to be the sole judge, with the Bureau of Reclamation, of the merits of the respective proposals received. The Authority is not required to award a contract based on the lowest responsible proposal. The award will be made, if at all, based upon the best interests of the Authority and Reclamation and the Project.

Technical questions may be directed in writing to Harry Remmers at HREMMERS@do.usbr.gov or via fax to (303) 445-6353. Administrative questions may

be directed in writing to Tom Kirk at tkirk@salton-sea.dst.ca.us or via fax to (760) 564-5288. Questions and any responses will be provided to all Contractors upon request.

The Contractor will be expected to sign the Authority's standard Design-Build Agreement Form and associated contract documents. The RFP does not contain the contract documents. However, some of the key contractual provisions which may impact your proposed budget are outlined in Section 6.0, below.

6.0 LEGAL REQUIREMENTS

The following is a summary of legal requirements which may impact your proposal and budget:

1. Buy American (Section 31.36(c)(5) of 40 C.F.R. 31)
In accordance with Section 215 of the Clean Water Act (33 U.S.C. 1251 et seq.) and implementing EPA regulations, the contractor (Design Builder) agrees that preference will be given to domestic construction materials by the contractor (Design Builder), subcontractors, material suppliers and other suppliers in the performance of this contract.

2. Prevailing Wages
Proposers are advised that this Contract is a public work for purposes of the California Labor Code, which requires payment of prevailing wages. The successful proposer must comply with applicable provisions of state law.

3. Substitution for Retentions
Proposers are advised that if awarded this Contract they will be permitted, at their request and expense and in accordance with Section 22300 of the California Public Contract Code, to substitute securities equivalent to monies withheld by the Authority to ensure performance under the Contract.

4. Performance and Payment Bonds
The successful proposer will be required to furnish, prior to the award of the Contract, a Performance Bond and a Payment (Material and Labor) Bond, each in an amount equal to one hundred percent (100%) of the Contract Price (as provided in the Agreement Form). Only bonds executed by admitted Surety insurers, as defined in Code of Civil Procedure § 995.120, with a current A.M. Best's rating no less than A:VIII and satisfactory to the Owner shall be accepted.

5. Liquidated Damages.
Pursuant to Government Code Section 53069.85, Design Builder shall pay to the Owner, as fixed and liquidated damages, the sum of **$500** for each and every calendar day of delay beyond the established Project completion date or beyond any completion schedule, construction schedule or Project milestones

established pursuant to the Contract. Liquidated damages may be deducted from any payments or other funds owing to Design Builder, including progress payments, the final payment and retentions. There is no early completion bonus.

6. Insurance.

Coverage & Limits: Coverage shall have limits and be at least as broad as the latest version of the following: **General Liability.** Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001). $1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit. **Automobile Liability.** Insurance Services Office Business Auto Coverage form number CA 0001, code 1 (any auto). $1,000,000 per accident for bodily injury and property damage. **Workers' Compensation and Employers' Liability.** Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance. Workers' compensation limits as required by the Labor Code of the State of California. Employers Liability limits of $1,000,000 per accident for bodily injury or disease.

Insurance Endorsements: The insurance policies shall contain the following provisions, or Design Builder shall provide endorsements on forms supplied or approved by the Owner to add the following provisions to the insurance policies: **General Liability.** (1) The Owner and its officials, officers, employees, agents and volunteers shall be covered as additional insureds with respect to the Work or operations performed by or on behalf of the Design Builder, including materials, parts or equipment furnished in connection with such Work; and (2) the insurance coverage shall be primary insurance as respects the Owner and its officials, officers, employees, agents and volunteers, or if excess, shall stand in an unbroken chain of coverage excess of the Design Builder's scheduled underlying coverage. Any insurance or self-insurance maintained by the Owner or its officials, officers, employees, agents or volunteers shall be excess of the Design Builder's insurance and shall not be called upon to contribute with it in any way. **Automobile Liability.** (1) The Owner and its officials, officers, employees, agents and volunteers shall be covered as additional insureds with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by the Design Builder or for which the Design Builder is responsible; and (2) the insurance coverage shall be primary insurance as respects the Owner and its officials, officers, employees, agents and volunteers, or if excess, shall stand in an unbroken chain of coverage excess of the Design Builder's scheduled underlying coverage. Any insurance or self-insurance maintained by the Owner or its officials, officers, employees, agents and volunteers shall be excess of the Design Builder's insurance and shall not be called upon to contribute with it in any way. **Workers' Compensation and**

Employers Liability Coverage. The insurer shall agree to waive all rights of subrogation against the Owner and its officials, officers, employees, agents and volunteers for losses paid under the terms of the insurance policy which arise from work performed by the Design Builder. **All Coverages.** Each insurance policy required by this Contract shall be endorsed to state that: (1) coverage shall not be canceled, materially changed or reduced in amount except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the Owner ; and (2) any failure to comply with reporting or other provisions of the policies, including breaches of warranties, shall not affect coverage provided to the Owner or its officials, officers, employees, agents and volunteers.

Separation of Insureds; No Special Limitations: All insurance required by this Section shall contain standard separation of insureds provisions. In addition, such insurance shall not contain any special limitations on the scope of protection afforded to the Owner or its officials, officers, employees, agents and volunteers.

Professional Liability Insurance: All architects, engineers, consultants or design professionals retained or used by Design Builder shall also procure and maintain, for a period of one (1) year following completion of the Contract, errors and omissions liability insurance with a limit of not less than $1,000,000 per claim. This insurance shall be endorsed to include all contractual liability.

Acceptability of Insurers: Insurance is to be placed with insurers with a current A.M. Best's rating no less than A:VIII, licensed to do business in California, and satisfactory to the Owner .

Verification of Coverage: Design Builder shall furnish Owner with original certificates of insurance and endorsements effecting coverage required by this Contract. The Owner reserves the right to require complete, certified copies of all required insurance policies, at any time.

Subcontractors: All subcontractors shall meet the same insurance requirements. In addition, Design Builder shall include all Subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each Subcontractor.

7. Work Product.

All Project Documents, as defined in the Agreement Form Modification, shall be and remain the property of the Owner. Although the official copyright in all Project Documents shall remain with the Design Builder or other applicable subcontractors or consultants, the Project Documents shall be the property of Owner, whether or not the work for which they were made is executed or

completed. Design Builder grants to Owner the right to use and reuse all or part of the Project Documents, at Owner's sole discretion with no additional compensation to Design Builder, for the construction of all or part of this Project. Owner shall be able to use or reuse the Project Documents for their intended purposes or to otherwise complete this Project, if necessary, without risk of liability to the Owner. However, any use or reuse by Owner of the Project Documents on any project other than this Project, without employing the services of Design Builder, shall be at Owner's own risk. Design Builder shall be responsible and liable for its Project Documents, pursuant to the terms of this Contract, only with respect to the condition of the Project Documents at the time they are provided to the Owner upon completion, suspension, abandonment or termination of the Contract. Design Builder shall not be responsible or liable for any revisions to the Project Documents made by any party other than Design Builder, a party for whom the Design Builder is legally responsible or liable, or anyone approved by the Design Builder. The Contract creates a non-exclusive and perpetual license for Owner to copy, use, modify or reuse any and all Project Documents and any intellectual property rights therein. All Project Documents, either created by or provided to Design Builder in connection with the performance of this Contract, shall be held confidential by Design Builder to the extent they are not subject to disclosure pursuant to the Public Records Act or other applicable law. All Project Documents shall not, without the written consent of Owner, be used or reproduced by Design Builder for any purposes other than the performance of this Contract.

APPENDIX A

Aerial System

The Agam (aerial) EES consists of pipes with nozzles suspended in the air between towers (see *Figure 3* and *4* on pages *B-4* and *B-5*). A pair of towers 30 meters (m) in height will be constructed in the pilot phase to provide elevation for the discharged droplets. If the aerial EES is tested during the demonstration phase, then a single pair of 40m towers (with pipes and nozzles) will be constructed to the south of the first 30-m towers.

Ground-based Systems

The SMI and Slimline evaporators(shown in *Figures 5* and *6,* respectively, found on pages B-6 and B-7) are packaged mechanical units that are fabricated offsite. These devices have nozzles that are located approximately 10 feet above ground level and are referred to as ground-based systems. Pumps and fans are used to propel the droplets to greater elevations.

Technology Description and Specifications

The design and operation of the three enhanced evaporation technologies are described in detail below. Since we are in the early phases of the project, the design or operation of each system may be modified.

Agam Energy Systems

Pilot Phase - 30 meter towers

Agam Energy Systems will design, fabricate, and provide technical support during installation, O&M, and testing of the aerial EES, including the two 30-meter towers and the spray shower, pumps, controls, and plumbing and electrical hookups that go with it. The shower system will have 8 shower lines that are each 60-m long. To operate the system, water will be pumped from the holding pond to the top of the towers where it is introduced into the shower lines. Each shower line will have approximately 40 nozzles that operate at pressures of approximately 40 psi. Agam Energy Systems estimates the droplet size at the nozzle during this test will be less than 70 microns in diameter.

The system will be equipped to shut down during periods of high winds (≥ 15 mph), if necessary, to avoid excessive spray drift. During operation the residual brine will be recycled through the evaporator system until it reaches a target

concentration (perhaps 275,000 mg/L), at which point it will be discharged to the precipitation pond or stored in place to achieve 100% salt precipitation.

The specifications and performance estimates for the Agam pilot-test evaporation system are as follows:

Shower height = adjustable to 15, 20, and 25 meters (50, 65, and 80 ft)
Shower length = 60 meters (200 ft)
Shower width = 10 meters (33 ft)
Hours of operation = 24 hrs/day
Flowrate in = 325 gpm
Concentration in = 44,000 mg/L TDS
Evaporation = 60% (avg)
Droplet diameter = 70 microns
Salt accumulation = 42 tons of salt per day in catchment or precipitation pond
Containment pond size = 200 m x 200 m (650 ft x 650 ft)
Filtration system = size to be determined (Who is responsible for this?)

Slimline Manufacturing (Turbo-Mist)

Slimline Manufacturing will design, fabricate, and provide technical support during the installation, O&M, and testing of a Turbo-Mist S30P Evaporator and any other equipment (pumps, controls, and plumbing and electrical hookups, etc.) needed for their Pilot Test. The Turbo-Mist S30P uses an axial-flow turbine to produce a high-velocity wind stream. The water is introduced into the wind stream through an array of nozzles and the wind stream is directed into the air at a 45º angle. A single unit with a feed flowrate of approximately 100 gpm will be tested. Specifications and performance estimates for the pilot test of the Turbo-Mist S30P Evaporator are as follows:

Hours of operation = 24 hrs/day
Flowrate in = 100 gpm
Concentration in = 44,000 mg/L TDS
Concentration out = 110,000 mg/L TDS
Evaporation = 60% (avg)
Droplet diameter = 50-300 microns
Salt accumulation = 18 tons of salt per day in precipitation pond
Catchment pond size = 500 ft x 500 ft
Filtration system = size to be determined

If the results of the Pilot Test show the Turbo-Mist S30P Evaporator to be cost effective and reliable, Reclamation and the Authority may choose to proceed to a demonstration test using multiple (5) S30P Evaporators.

SMI Evaporative Systems

SMI will design, fabricate, and provide technical support during installation, O&M, and testing of a ground-based EES, consisting of a Model 320 Evaporator and any other equipment (pumps, controls, and plumbing and electrical hookups, etc.) needed for their pilot test. The Model 320 Evaporator works by introducing water into a fan spinning at 3600 rpm. The fan fractures the water into droplets ranging from 50 to 500 microns in diameter. A single unit with a feed flowrate of approximately 100 gpm will be tested. Specifications and performance estimates for the pilot test of the SMI 320 Evaporator are as follows:

Hours of operation = 24 hrs/day
Flowrate in = 100 gpm
Concentration in = 44,000 mg/L TDS
Concentration out = 110,000 mg/L TDS
Evaporation = 60% (avg)
Droplet diameter = 50-500 microns
Salt accumulation = 18 tons of salt per day in precipitation pond
Catchment pond size = 500 ft x 500 ft
Filtration system = size to be determined

If the results of the Pilot Phase show the SMI 320 Evaporator to be cost effective and reliable, Reclamation and the Authority may choose to proceed with a larger, demonstration-scale test of the technology using multiple (4 or 5) 320 Evaporators.

Power Source

Electrical power for the EES study is currently not available at the site. A request for electrical service is being processed by the Imperial Irrigation District (IID) to construct a 12.5 kV overhead distribution line to the test site (a distance of about 3 miles from the current terminus of the power line near Three Flags Ranch) at a cost of $188,000. An alternative and possible less expensive approach would be to use diesel-powered generator sets, but this may not be practical considering the peak load (estimated between 250 and 300 kW) and amount of diesel fuel that would be needed for 6 months of testing. The need for reliable and conditioned power for the instrumentation and data collection equipment may also render generator sets unacceptable for this application.

Intake Structure

The intake will be located in the Sea about 700 feet off shore near the end of the old marina. The water depth at that location is anywhere from 15 to 22-feet. The pump will be attached to a temporary, floating structure. Salton Sea water will be drawn from a depth of 5-6 feet and pumped to shore through piping located underwater. The complete intake structure will be removed at the end of the project and the area restored to natural conditions.

Berm Construction for Ponds

It is anticipated that the pond berms can be constructed from soil excavated at the site and/or "borrowed" from within the pond sites Sections 21 and 28 or the proposed borrow material area in Section 20. The topsoil will be saved for restoration of the site and will not be used for construction. It is estimated that a total of approximately 60,000 cubic yards of dirt will be needed to construct all the berms for the pilot project and another 40,000 cubic yards for the demo project; about half of which can be obtained from within the project area. The amount available from excavations at the site will not be dependent on the site surveys and soil investigation work to be performed by the Contractor.

Meteorological Tower and Data Collection

A 150-foot tall meteorological tower will be installed at the location shown in Figure 2a. The tower will be installed on or near an existing concrete pad and held in place with three guy wires equally spaced at 120 degrees and tied to "concrete deadmen" located at a 100-ft radius. The tower will be equipped with Met One instruments to measure and record temperature (both wet and dry bulb), relative humidity, and wind speed and direction at three different levels - 10, 55, and 150 feet. Precipitation and evaporation data will also be collected at ground level in accordance with the NWS (National Weather Service) standard. The weather data, which will be used to establish operating parameters for the EES testing and to interpret the EES performance data, may be collected and transmitted to IID for processing via MODBUS radio communication system.

Staffing, Facilities, and Security

A crew of 3 - 6 people will occupy an office trailer during operation of the evaporation systems. The trailer will be located near the meteorological tower. Bottled water and portable latrines will be provided for site personnel. Sanitation services will be provided for servicing of the latrines and trash disposal. Signs and fencing will be installed and a 24-hour guard assigned to provide site security and to control access to the site.

Unexploded Ordnance

Prior to all ground disturbing activities (i.e., installing power poles, scraping soil for displacement pond development, collection of geotechnical samples, etc.) an Unexploded Ordnance (UXO) survey is required to be performed by the Navy. Arrangements will be coordinated through Reclamation and made with the US Navy's SW Div for these services.

The exact nature of the UXO survey will be dependent upon the location of the proposed intrusive activities. Areas where the probability of encountering UXO is minimal will likely be subject to surficial magnetometry surveys, whereas areas that are expected to contain UXO will likely require surficial magnetometry surveys as well as "at depth" surveys after "lifts" of soil have been removed. Where appropriate, surveys can also be conducted concurrently with ground disturbing activities as long as the survey is performed prior to initial excavation or digging and then prior to each lift of soil removed. The survey will usually involve at least two Explosive Ordnance Disposal (EOD) type personnel. If an UXO is identified, the item will have to be dealt with accordingly in place if the UXO is deemed unsafe for moving, or perhaps it can be moved out of the way and disposed of properly in a separate location. In either case, all "nonessential" personnel and anyone not directly related to EOD activities will be required to retreat to a safe distance away from the area, which depending on the size of the unit can be up to or even more than 5,000 feet away as determined by the EOD specialist.

Salt Residual Accumulation

The EES geomembrane-lined test ponds will be used to collect the residual spray droplets and salt crystals formed during the evaporation process. Each EES will be operated to achieve 85 - 90% evaporation of the feedwater. The remaining 10 - 15% of the feedwater will become highly concentrated brine which will be pumped to a lined precipitation pond as required.

One or two small (50-ft x 50-ft) lined test ponds will be constructed at the site to accurately measure the natural evaporation rate. These ponds will be lined with a geomembrane liner. The evaporation tests will be conducted using brine solutions, representative of that stored in the EES test ponds.

Threatened and Endangered Species:

The project area has been determined to be suitable habitat for the Flat Tailed Horn Lizard (FTHL), a species of concern. As a result, all personnel conducting ground-disturbing activities shall be educated on mitigation measures to be followed for the

FTHL and be expected to comply with the mitigation measures. Endangered species within the area and surrounding area are the desert pupfish and the brown pelican.

Environmentally Sensitive Areas:

Environmentally sensitive areas have been identified within the proposed borrow material area (Section 20) and near the footprint of the project. These areas will be flagged prior to start of construction activities. Disturbance of these areas is to be avoided. Training and information will be provided for these areas prior to project start. Compliance of all workers with this training and information is expected.

Appendix B, Figures

Figure 1. EES Pilot/Demonstration Project Location Map

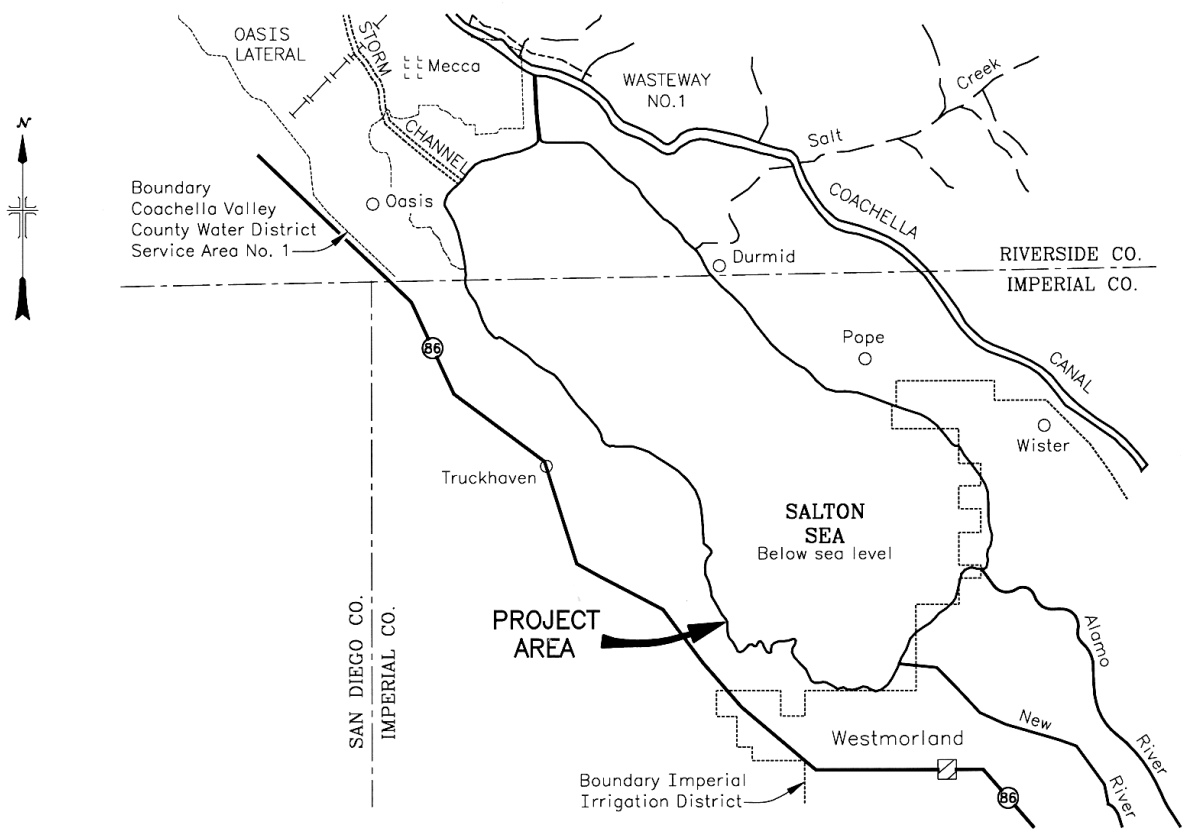
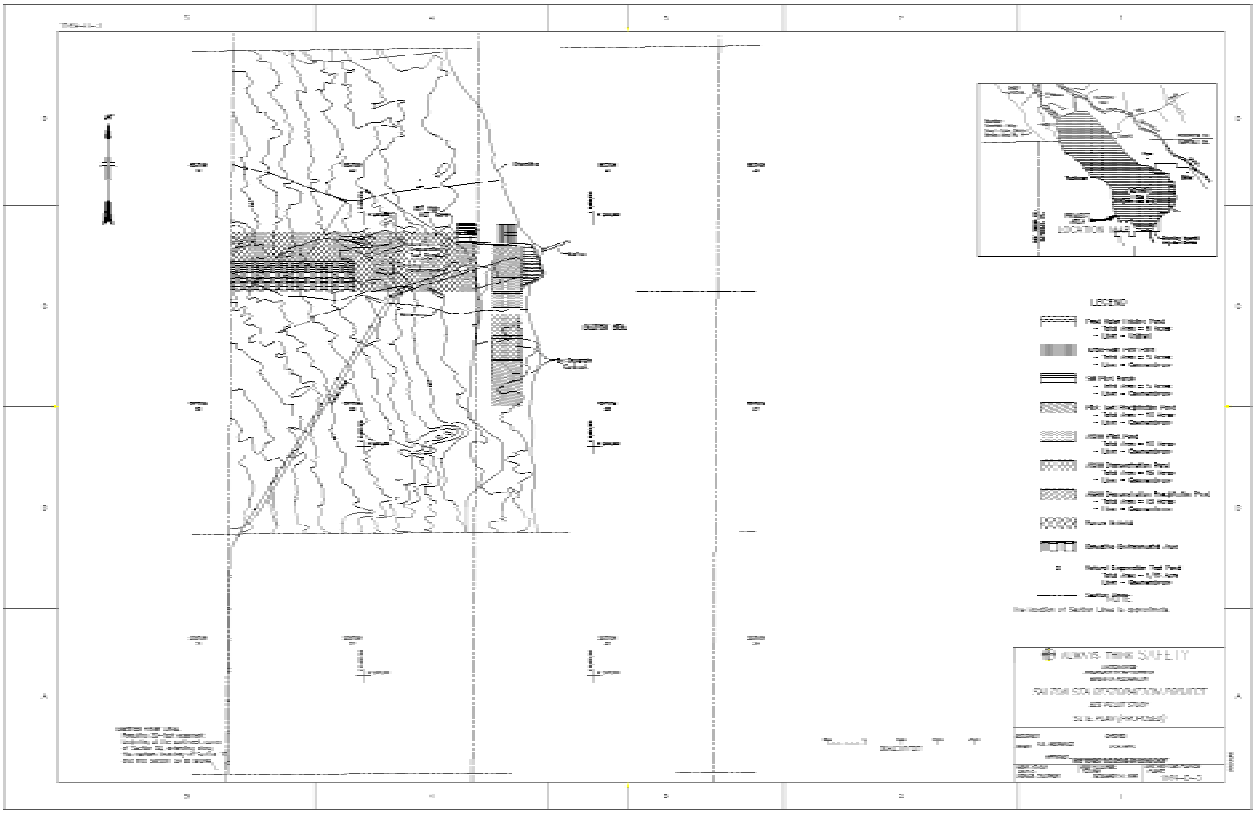
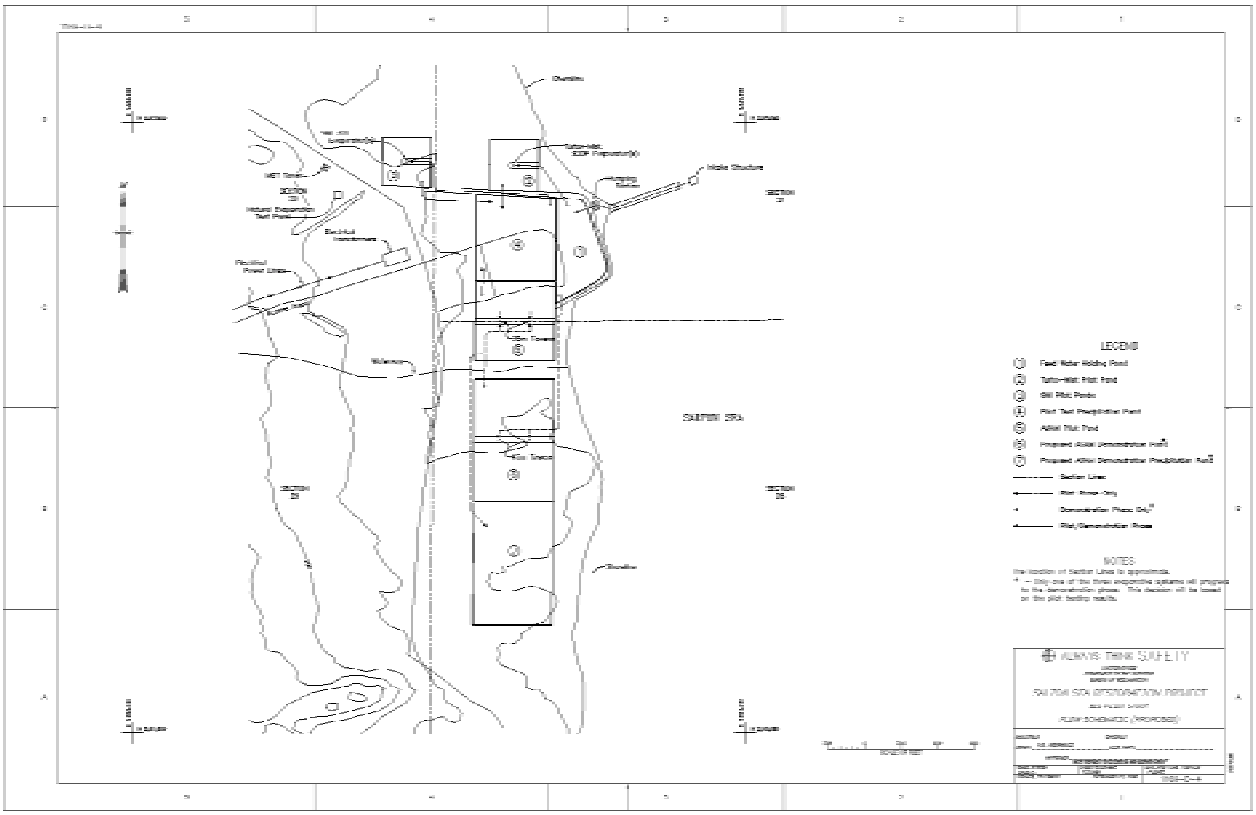


Figure 2a.
EES Pilot/Demonstration Site Plan[1]



1 Color 11”x17” exhibit can be obtained through the Authority: 760-564-4888.

Figure 2b. Proposed Flow Schematic for EES Pilot/Demonstration Project[2]



2 Color 11”x17” exhibit can be obtained through the Authority: 760-564-4888.

Figure 3. Enhanced Evaporation System Schematic

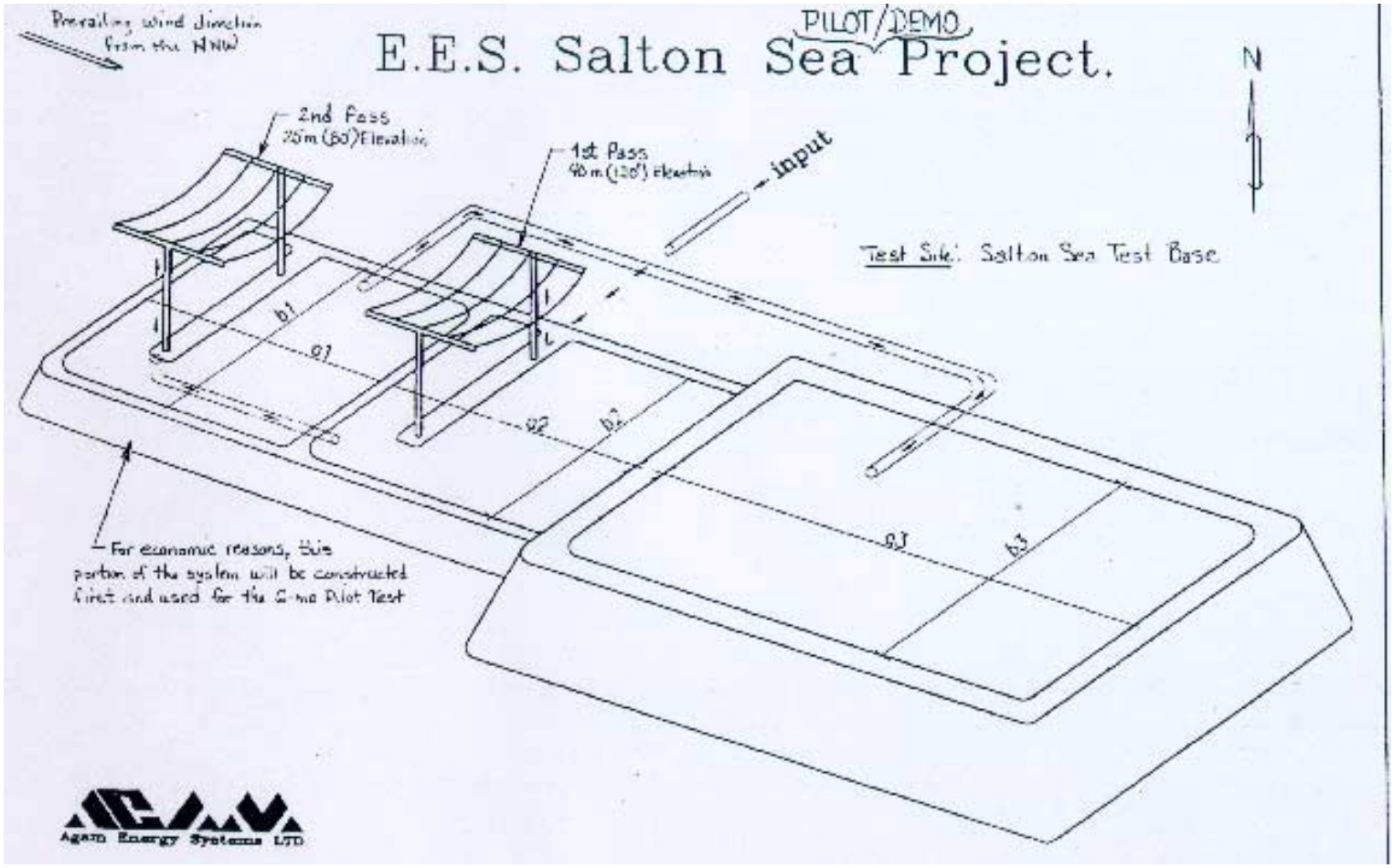


Figure 4. Photographs of shower-type Enhanced Evaporation Systems[3]

3 The pilot project at the Test Base will include only two towers.

Figure 5. Photographs of SMI ground-based Enhanced Evaporation Systems

Figure 6. Photographs of Slimline's Ground-based Enhanced Evaporation Systems

Appendix C, Non-Collusion Affidavit

In accordance with Title 23 United States Code Section 112 and California Public Contract Code 7106, the proposer declares that the proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the proposal is genuine and not collusive or sham; that the proposer has not directly or indirectly induced or solicited any other proposer to put in a false or sham proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any proposer or anyone else to put in a sham proposal, or that anyone shall refrain from submitting a proposal; that the proposer has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal price of the proposer or any other proposer, or communication, or conference with anyone to fix the proposal price, or of that of any other proposer, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the proposal are true; and, further, that the proposer has not, directly or indirectly, submitted his or her proposal price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, proposal/bid depository, or to any member or agent thereof to effectuate a collusive or sham proposal.

_____
Signature

_____
Typed or Printed Name

Subscribed and sworn before me
This ____ day of _____, 20____

_____
Notary Public in and for
the State of California